

WHAT IS CLAIMED IS:

1. A compressor arrangement, comprising:
  - an internal-combustion engine that generates a rotational movement;
  - a compressor unit arranged on an output side of the engine and being driven by the rotational movement, the compressor unit generating compressed air from ambient air;
  - a control unit coupled to the compressor unit for triggering the generation of compressed air upon demand;
  - an auxiliary compressor unit that covers peak compressed air demands, the auxiliary compressor unit being fluidically connected in parallel with the compressor unit and being driven by an electric motor; and
  - wherein the control unit controls the operation of the auxiliary compressor unit in an event of a detected peak demand.
2. The compressor arrangement according to claim 1, wherein the control unit indirectly controls the auxiliary compressor unit by switching the electric motor connected on an input side of the auxiliary compressor unit on and off.
3. The compressor arrangement according to claim 1, wherein the auxiliary compressor unit, together with the electric motor, is constructed as a system module which, depending upon an application, is optionally connectable to a compressed-air pipe which is blockable in an area of a branching-off connection piece.

4. The compressor arrangement according to claim 3, wherein the system module is detachably fastened to a chassis of a commercial vehicle.

5. The compressor arrangement according to claim 1, further comprising a transmission unit arranged between the internal-combustion engine and the compressor unit in order to adapt a rotational speed spectrum of the compressor unit to a rotational speed spectrum of the internal-combustion engine.

6. The compressor arrangement according to claim 1, further comprising a transmission unit arranged between the electric motor and the auxiliary compressor unit in order to adapt a rotational speed spectrum of the auxiliary compressor unit to a rotational speed spectrum of the electric motor.

7. The compressor arrangement according to claim 5, further comprising a second transmission unit arranged between the electric motor and the auxiliary compressor unit in order to adapt a rotational speed spectrum of the auxiliary compressor unit to a rotational speed spectrum of the electric motor.

8. The compressor arrangement according to claim 1, wherein the compressor unit, as well as the auxiliary compressor unit, are connected with a pressure tank for storing compressed air which is fluidically connected on an output side of the

compressor units.

9. The compressor arrangement according to claim 8, wherein charging of an empty pressure tank to a sufficient pressure level, which is definable by way of the control unit, takes place when the internal-combustion engine is stopped, exclusively by using the auxiliary compressor unit driven by the electric motor.

10. The compressor arrangement according to claim 9, wherein the charging of the empty pressure tank takes place in a time-controlled manner by way of the control unit.

11. The compressor arrangement according to claim 1, wherein in an event of a failure of the compressor unit driven by the internal-combustion engine, the control unit covers any compressed-air demand to the extent of an emergency function at least partially by controlling the electric-motor-driven auxiliary compressor unit.

12. The compressor arrangement according to claim 1, wherein the electric-motor-driven auxiliary compressor unit is constructed in the manner of a two-step compressor unit.

13. The compressor arrangement according to claim 1, wherein the control unit is integrated in an electronic air processing unit of a commercial vehicle.

14. A method of charging a pressure tank of a pneumatic system in a commercial vehicle, the method comprising the acts of:

providing an internal-combustion engine driven compressor unit coupling with the pressure tank;

providing an electric motor driven auxiliary compressor unit in parallel to the internal-combustion engine driven compressor unit and coupled to the pressure tank;

when the internal-combustion engine of the commercial vehicle is stopped, charging the pressure tank to a sufficient pressure level definable by way of a control unit exclusively using the auxiliary compressor unit driven by the electric motor.

15. The method according to claim 14, wherein the charging act further comprises the act of charging the pressure tank in a timed-control manner by way of the control unit.